April 3, 2002

Jeff Copeland
Western Remanufacturing
2902 Enterprise Drive
Anderson, IN 46013-9668

Re: Registered Construction and Operation Status
095-15316-00115

Dear Mr. Copeland:

The application from Western Remanufacturing, received on February 26, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the new emission source, a locomotive parts refurbishing plant to be located at 1524 Jackson Street, Anderson, IN 46016-1621, is classified as registered. This emission source consists of the following facilities:

(a) Nineteen (19) natural gas fired space heaters totaling 3.06 million Btu per hour heat input.
(b) One (1) dip seal tank, with a natural gas fired heater rated at 0.125 million Btu per hour heat input.
(c) One (1) gear washer, with a natural gas fired heater rated at 0.2 million Btu per hour heat input.
(d) One (1) blower cleaning tank, with a natural gas fired heater rated at 0.125 million Btu per hour heat input.
(e) One (1) carrier pin washer, with a natural gas fired heater rated at 0.3 million Btu per hour heat input.
(f) Three (3) head and liner cleaning tanks, each with a natural gas fired heater rated at 0.25 million Btu per hour heat input.
(g) One (1) cast iron shot blasting booth, with particulate emissions controlled by a baghouse identified as C-1.
(h) One (1) glass bead blasting booth, with particulate emissions controlled by a baghouse identified as C-2.
(i) One (1) spray painting booth, with particulate emissions controlled by dry filters.
(j) Miscellaneous machining and welding operations.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

   (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions from the abrasive blasting operations shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For a process weight rate of 0.9 tons per hour, this equation provides an emission limit of 3.82 pounds per hour. The control equipment shall be in operation at all times this emission unit is in operation, in order to comply with this limit.

3. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions from the painting operations shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3) or 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

Any change or modification which may increase the potential pollutant emissions to 25 tons per year or more from the equipment covered in this registration must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ARD

cc: File - Madison County
Madison County Health Department
Anderson Office of Air Management
Air Compliance Section Inspector - Warrren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name:	Western Remanufacturing
Address:	1524 Jackson Street
City:	Anderson, IN 46016-1621
Authorized individual:	
Phone #:	
Registration #:	095-15316-00115

I hereby certify that Western Remanufacturing is still in operation and is in compliance with the requirements of Registration 095-15316-00115.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**Western Remanufacturing**
Source Location:	**1524 Jackson Street, Anderson, IN 46016-1621**
County:	**Madison**
SIC Code:	**3700**
Application No.:	**095-15316-00115**
Reviewer:	**Allen R. Davidson**

On February 26, 2002, the Office of Air Quality (OAQ) received an application from Western Remanufacturing relating to the construction and operation of a locomotive parts refurbishing plant to be located at 1524 Jackson Street, Anderson, IN 46016-1621. This emission source will consist of the following facilities:

(a) Nineteen (19) natural gas fired space heaters totaling 3.06 million Btu per hour heat input.
(b) One (1) dip seal tank, with a natural gas fired heater rated at 0.125 million Btu per hour heat input.
(c) One (1) gear washer, with a natural gas fired heater rated at 0.2 million Btu per hour heat input.
(d) One (1) blower cleaning tank, with a natural gas fired heater rated at 0.125 million Btu per hour heat input.
(e) One (1) carrier pin washer, with a natural gas fired heater rated at 0.3 million Btu per hour heat input.
(f) Three (3) head and liner cleaning tanks, each with a natural gas fired heater rated at 0.25 million Btu per hour heat input.
(g) One (1) cast iron shot blasting booth, with particulate emissions controlled by a baghouse identified as C-1.
(h) One (1) glass bead blasting booth, with particulate emissions controlled by a baghouse identified as C-2.
(i) One (1) spray painting booth, with particulate emissions controlled by dry filters.
(j) Miscellaneous machining and welding operations.

History

Western Remanufacturing is a subsidiary of Delco Remy America, Inc., which operates several emission sources in the Anderson, IN area. However, the only plants under common ownership in proximity to this location have been closed and are no longer in operation. Therefore, this application is being treated as a new emission source for the purposes of this review.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Recommendation

The staff recommends to the Commissioner that the emission source be issued a registration. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 26, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations. (5 pages)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

Pollutant	Potential To Emit (tons/year)
PM	20.9
PM-10	20.9
SO_2	0.0
VOC	1.7
CO	1.1
NOX	1.3

HAP's	Potential To Emit (tons/year)
Xylene	0.24
Glycol Ethers	0.66
Methyl Ethyl Ketone	0.13
Chromium Compounds	0.01
Diethanolamine	0.16
TOTAL	1.20

The potential to emit particulate matter (PM) is less than 25 tons per year, but greater than five tons per year. Therefore, the existing source is classifiable as a registration under 326 IAC 2-5.5.

This source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. No attainment regulated pollutant has the potential to emit at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

County Attainment Status

The source is located in Madison County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards.

Madison County has been designated as attainment or unclassifiable for ozone and for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source. This source is not subject to the requirements of NESHAP Subpart T since no halogenated solvents are used.

State Rule Applicability - Entire Source

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). The source does not have potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutant specified in the rule.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Paint Booth

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

This emission unit is not subject to 326 IAC 8-2-9. Pursuant to 326 IAC 8-2-1 (Applicability), the rule is not applicable since the volatile organic compound (VOC) emissions are less than 15 pounds per day before controls.

326 IAC 8-1-6 (General VOC Reduction Requirements)

This emission unit is not subject to 326 IAC 8-1-6 (General Reduction Requirements) because the potential to emit volatile organic compounds is less than twenty-five (25) tons per year. Therefore, the BACT (best available control technology) requirements do not apply.

326 IAC 6-3-2 (Particulate Emissions Limitations)

This emission unit is subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

State Rule Applicability - Abrasive Blasting Operations

326 IAC 6-3-2 (Particulate Emissions Limitations)

The blasting booths are subject to 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2 (Particulate Emissions Limitations), particulate matter (PM) emissions shall be limited by the following equation for process weight rates up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

For a process weight rate of 0.9 tons per hour, this equation provides an emission limit of 3.82 pounds per hour. The control equipment shall be in operation at all times this emission unit is in operation, in order to comply with this limit.

State Rule Applicability - Washers and Cleaning Tanks

326 IAC 8-3 (Organic Solvent Degreasing Operations)

These facilities are not subject to 326 IAC 8-3 (Organic Solvent Degreasing Operations) because they do not utilize organic solvents.

State Rule Applicability - Natural Gas Heaters

There are no state rules applicable to these facilities.

State Rule Applicability - Miscellaneous Machining and Welding Operations

Emissions from machining and welding operations are presumed to be negligible. These operations conform to the definition of "insignificant activity" under 326 IAC 2-7-1(21).

Conclusion

The construction and operation of this emission source shall be subject to the conditions of the attached Registration 095-15316-00115.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Western Remanufacturing
Address City IN Zip: 1524 Jackson Street, Anderson, IN 46016-1621
ID: 095-15316-00115
Reviewer: Allen R. Davidson
Date: 04/03/02

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.060	26.8

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.3	0.1	1.1

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.815E-05	1.608E-05	1.005E-03	2.413E-02	4.557E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.701E-06	1.474E-05	1.876E-05	5.093E-06	2.815E-05

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98).
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: Western Remanufacturing
Address City IN Zip: 1524 Jackson Street, Anderson, IN 46016-1621
ID: 095-15316-00115
Reviewer: Allen R. Davidson
Date: 04/03/02

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter, in	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)	
FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	477
D = Density of abrasive (lb/ft3) From Table 2 =	160
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.375
ID1 = Nozzle internal diameter (in) from Table 3 =	0.375

Flow Rate (FR) (lb/hr) = **770.909** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	770.909
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled Emissions =	**7.71 lb/hr**
	33.77 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: Western Remanufacturing
Address City IN Zip: 1524 Jackson Street, Anderson, IN 46016-1621
ID: 095-15316-00115
Reviewer: Allen R. Davidson
Date: 04/03/02

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter, in	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)	
FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	417
D = Density of abrasive (lb/ft3) From Table 2 =	200
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.375
ID1 = Nozzle internal diameter (in) from Table 3 =	0.375

Flow Rate (FR) (lb/hr) = **842.424** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	842.424
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled Emissions =	**8.42 lb/hr**
	36.90 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Western Remanufacturing
Address City IN Zip: 1524 Jackson Street, Anderson, IN 46016-1621
ID: 095-15316-00115
Reviewer: Allen R. Davidson
Date: 04/03/02

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Dip Seal DS300G	8.00	0.10%	0.0%	0.1%	0.0%	0.00%	0.200	1.000	0.01	0.01	0.00	0.04	0.01	1.75	ERR	75%
199L Rust Protector	8.92	0.00%	0.0%	0.0%	0.0%	0.00%	0.080	1.000	0.00	0.00	0.00	0.00	0.00	0.78	ERR	75%
Superclean 950	8.76	10.00%	0.0%	10.0%	0.0%	0.00%	0.160	1.000	0.88	0.88	0.14	3.36	0.61	1.38	ERR	75%
Texolite 100 SP	0.00	0.00%	0.0%	0.0%	0.0%	0.00%	0.120	1.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	75%
Globrite 40 IP	0.00	0.00%	0.0%	0.0%	0.0%	0.00%	0.479	1.000	0.00	0.00	0.00	0.00	0.00	0.00	ERR	75%
Silver Paint	8.00	76.90%	0.0%	76.9%	0.0%	0.00%	0.024	1.000	6.15	6.15	0.15	3.54	0.65	0.05	ERR	75%
Alpine Green Paint	8.90	54.00%	0.0%	54.0%	0.0%	0.00%	0.016	1.000	4.81	4.81	0.08	1.85	0.34	0.07	ERR	75%

State Potential Emissions **Add worst case coating to all solvents** **0.37** **8.79** **1.60** **4.03**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Western Remanufacturing
Address City IN Zip: 1524 Jackson Street, Anderson, IN 46016-1621
ID: 095-15316-00115
Reviewer: Allen R. Davidson
Date: 04/03/02

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % HAP#1	Weight % HAP#2	Weight % HAP#3	Weight % HAP#4	Weight % HAP#5	Weight % HAP#6	Weight % HAP#7	Emissions HAP#1 (ton/yr)	Emissions HAP#2 (ton/yr)	Emissions HAP#3 (ton/yr)	Emissions HAP#4 (ton/yr)	Emissions HAP#5 (ton/yr)	Emissions HAP#6 (ton/yr)	Emissions HAP#7 (ton/yr)
Dip Seal DS300G	8.00	0.20000	1.00000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199L Rust Protector	8.92	0.08000	1.00000	0.00%	0.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Superclean 950	8.76	0.16000	1.00000	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.61	0.00	0.00	0.00	0.00	0.00
Texolite 100 SP	0.00	0.12000	1.00000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Globrite 40 IP	0.00	0.47900	1.00000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silver Paint	8.00	0.02400	1.00000	20.00%	5.00%	15.00%	1.00%	0.00%	0.00%	0.00%	0.17	0.04	0.13	0.01	0.00	0.00	0.00
Alpine Green Paint	8.90	0.01600	1.00000	12.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.07	0.00	0.00	0.01	0.00	0.00	0.00
Total State Potential Emissions											**0.24**	**0.66**	**0.13**	**0.01**	**0.16**	**0.00**	**0.00**

METHODOLOGY

Total for all: 1.20

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

LEGEND

HAP#1 = Xylene
HAP#2 = Glycol Ethers
HAP#3 = Methyl Ethyl Ketone
HAP#4 = Chromium Compounds
HAP#5 = Diethanolamine
HAP#6 = n/a
HAP#7 = n/a

The following calculations determine the emission limit under 326 IAC 6-3-2:

E = 4.1 * (0.900 ^ 0.67) = 3.82 lb/hr

3.82 lb/hr * 8760 hr/yr / 2000 lb/ton = 16.73 ton/yr